2

3

22

23

24

fered.

Journal of Sex & Marital Therapy, 00:1–17, 2013 Copyright © Taylor & Francis Group, LLC ISSN: 0092-623X print / 1521-0715 online DOI: 10.1080/0092623X.2012.751074



Toward a More Complete Understanding of Reactions to Hooking Up Among College Women

JESSE OWEN and KELLEY QUIRK 4 5 University of Louisville, Counseling Psychology, College of Education, Louisville, 6 Kentucky, USA 7 FRANK FINCHAM 8 Florida State University Family Institute, Tallahassee, Florida, USA Hooking up, a relatively common behavior among young adults, 9 refers to a casual sexual encounter, ranging from kissing to sexual 10 intercourse, without an expectation of ongoing physical encounters 11 or relational commitment. Reactions to booking up have examined 12 psychosocial outcomes as a proxy for specific reactions. The present 13 study examined the reactions of 190 college women, with a specific 14focus on the effect of hooking up on their social/peer network, their 15 sexual/romantic sense of self, and their academic performance. 16 Results demonstrated large positive effects for sexual/romantic re-17 actions and social/academic engagement reactions in comparison 18 with negative personal reactions. In addition, higher ratings of 19 anxious attachment, loneliness, and relational/intimacy sex mo-20 tives were related to less positive reactions, highlighting the impor-21

Q1

Hooking up refers to a range of physical intimacies, from kissing to intercourse that occur infrequently or once and where the partners do not necessarily expect future physical encounters or a committed relationship (Glenn & Marquardt, 2001; Owen, Rhoades, Stanley, & Fincham, 2010; Paul, McManus, & Hayes, 2000). Hooking up is common among young adults (e.g., 50% to 85%; Owen et al., 2010; Paul et al., 2000), and a variety of predictors have been identified that differentiate between those who report

tance of attachment and motivations behind hookup experiences. Implications for educational practice and future research are of-

1

Q2

Address correspondence to

hooking up and those who do not, such as alcohol use, casual sex attitudes,
extroversion, loneliness, religiosity, and insecure attachment (e.g., Burdette,
Ellison, Hill, & Glenn, 2009; Fielder & Carey, 2010a; Gentzler & Kurns, 2004;
Gute & Eshbaugh, 2008; Owen, Fincham, & Moore, 2011). However, less is
known about young adults' reactions to hooking up, and consequently they
are the focus of the present study.

Two approaches examine reactions to hooking up. In the first, re-38 searchers have examined differences in psychological functioning (e.g., de-39 pressive symptoms, self-esteem) between young adults who have hooked 4041 up and those who have not. For example, Fielder and Carey (2010a) found that women who engaged in penetrative hookups reported more depressive 42 symptoms as compared with women who did not. Although this approach 43 has advantages, it does not account for selection effects (or other third vari-44 able effects); specifically young adults who decide to hook up may have 45 other characteristics that predispose them to have better or worse mental 46 health. Thus, hooking up may be a part of a larger constellation of risk fac-47 48 tors for negative mental health outcomes (Grello, Welsh, & Harper, 2003).

The second approach assesses directly young adults' reactions to hook-49 ing up (Glenn & Marquardt, 2001; Lewis, Granato, Blayney, Lostutter, & 50 Kilmer, 2011; Townsend & Wasserman, 2011). For example, Owen and col-51 leagues (2010) categorized men and women on the basis of their emotional 52 reactions to hooking up and found that 48.7% of women endorsed only neg-53 ative emotional reactions as compared with 26.0% of men. Other researchers 54 using continuous rating scales (e.g., Fielder & Carey, 2010b; Lewis et al., 55 2011; Owen & Fincham, 2011) have found that men and women reported 56 more positive than negative emotions to hooking up; however, men typically 57 reported hooking up to be more positive and less negative as compared with 58 59 women (Lewis et al., 2011; Owen & Fincham, 2011).

To date, most research on young adults' reactions to hooking up has 60 61 centered on emotional reactions. Although young adults' emotional reactions to hooking up are important, there are also other developmentally salient out-62 comes that may relate to the hookup experience. Accordingly, we examine 63 how young adults perceive that hooking up affects normative developmental 64 tasks for young adults: (a) social/peer network, (b) sexual/romantic sense 65 of self, and (c) academic performance (Beyers & Goossens, 2002; Manning, 66 Longmore, & Giordano, 2005). 67

68 HOOKING UP REACTIONS: SOCIAL/PEER NETWORKS

69 Lewis and colleagues (2011) found that approximately 78% of young adults 70 hook up with a friend or an acquaintance; thus, there may be a shift in the 71 ways the members of the social network relate to one another. In a similar 72 vein, hooking up can influence feelings of social connection with others,

such feelings of loneliness (Owen, Fincham, & Moore, 2011). Given that social/peer networks have been linked to engagement in college/university activities, retention, and less psychological distress (Bai & Pan, 2009; Friedman & Mandel, 2009; Heckert et al., 2000), it is important to better understand how young adults' perceive that hooking up is associated with their feelings of connectedness with their peers.

79 Hooking Up Reactions: Romantic and Sexual Sense of Self

Hooking up is one way that young adults can explore elements of romantic 80 relationships and their sexual sense of self. For example, some young adults 81 (65% of women and 45% of men) hook up with the hope of transitioning 82 into a committed relationship (Owen & Fincham, 2011; also see Eisenberg, 83 Ackard, Resnick, & Neumark-Sztainer, 2009). Romantic and sexual explo-84 ration is commonly reported as motivations for engaging in hookups (Glenn 85 & Marquardt, 2001; Hughes et al., 2005). Thus, the extent to which hooking 86 up is perceived to positively or negatively affect one's romantic and sexual 87 sense of self is likely to be influenced by young adults' relational schemas 88 and sexual motivations. 89

90 Attachment theory suggests that internal working models of relationships shape motivations for future romantic and casual relationships 91 (Gentzler & Kerns, 2004; Hazen & Shaver, 1998; Paul et al., 2000). Se-92 cure attachment reflects comfort in close relationships whereas insecure at-93 tachment reflects two facets, either anxiety about becoming close to others 94 or the avoidance of close relationships altogether. In theory, young adults 95 with more anxious attachment may be more likely to have negative sex-96 97 ual/romantic reactions to hooking up because they typically have relational schemas that predispose them toward investment in a relationship while 98 99 heightening their fear of abandonment by their romantic partners (Hazen & Shaver, 1998). 100

101 In the sex-motives literature, Cooper and colleagues (Cooper, Barber, Zhaoyang, & Talley, 2011; Cooper, Shapiro, & Powers, 1998) has pro-102 posed a two-dimensional model: approach vs. avoidance and self vs. social. 103 These two dimensions produce four prototypical sexual motives: (a) self-104affirmation (avoidance/self), which reflects engaging in a hookup to escape 105 negative emotions and avoid threats to self-esteem; (b) self-enhancement 106 (approach/self) or the desire to hook up for sexual gratification; (c) partner-107 108 approval (avoidance/social), which reflects the desire to seek approval or minimize negative reactions of the hookup partner; and (d) relational in-109 timacy (approach/social) or the hope to develop a stronger intimate con-110 nection with the hookup partner (Cooper et al., 1998). These motives have 111 been associated with decisions to engage in casual sex encounters (see 112Cooper et al., 2011) and might influence the ways in which hooking up 113

Q3

affects young adults' sexual sense of self. We expected young adults who en-114 dorse more self-affirmation, partner approval, and relational intimacy sexual 115 motives might exhibit less positive sexual/relational hooking up reactions, 116 given that hooking up typically does not involve clear communication be-117 tween partners about the relational connection or longer term commit-118 119 ted relationships (Bisson & Levine, 2009; Eisenberg et al., 2009; Owen & Q5 120 Fincham, in press).

Hooking-Up Reactions: Academic Performance 121

There are two primary reasons to examine the relation between hooking up 122 and academic functioning. Approximately 40% of college students report be-123 124 ing so distressed that it interferes with their academic functioning (American College Health Association, 2007) and hooking up has been associated with 125 126 psychological distress, especially for women (Fielder & Carey, 2010a; Grello et al., 2003; Owen et al., 2010). Thus, it is possible that negative reactions 127 to hooking may affect psychological well-being and academic performance. 128 Alternatively, some young adults may have entered the hookup with the 129 hope of developing a deeper relational connection (i.e., relational intimacy 130 sex motives; Owen & Fincham, 2011). Thus, young adults who report more 131 relational sexual motives might be more likely to report more interference in 132 academic performance when reporting their reactions to hooking up. Regard-133 less of the frame of mind-distress or hope for deeper connection-there 134 may be a level of distraction or disruption to academic behavior. 135

Across studies, alcohol use and hookups are ubiquitously entangled. 136 137 Owen and Fincham (2011) found that more alcohol use was associated with fewer positive and more negative emotional reactions to hooking up; sug-138 gesting that alcohol use during the hookup does not provide an excuse 139 function but may fuel more regret after the hookup. For reactions to hook-140 ing up related to social/peer networks, romantic/sexual sense of self, and 141 academic performance, it is likely that alcohol use plays a role in concert 142 with young adults' attachment styles or sex motives (Cooper et al., 2011). For 143 144 example, alcohol use during a hookup may relate to a desire for pleasing a partner or increase the likelihood of gratifying their sexual needs. Conse-145 146 quently, it is important to understand the unique effects of sex motives and attachment on reactions to hooking up beyond what is typically associated 147 **06** 148 with alcohol induced states.

This study examines women's reactions to hooking up; women are more 149 likely to have negative emotional reactions compared with men (e.g., Lewis 150 et al., 2011; Owen et al., 2010; Owen & Fincham, 2011), and women are 151 at greater risk for contracting STIs (in heterosexual casual sex encounters) 152 as compared with men (Mayaud & Mabey, 2004; Padian, 1997). Many of Q7 153 the risk factors for engaging in hooking up are more robust for women. 154 155 For example, alcohol use is more likely to influence women's negotiation 156 and decision-making processes as compared with men (Owen & Fincham,

2011b). For example, alcohol use reduces the likelihood of condom use
when women hook up (Scott-Sheldon, Huedo-Medina, Warren, Johnson,
Carey, 2011). These data highlight potential gender inequities in the larger
society and can also influence hookups.

161 The Present Study

We expected young adults' perceptions that hooking up positively affected 162 their social/peer networks to report less loneliness and fewer depressive 163 symptoms. We anticipated young adults who endorsed more self-affirmation, 164 165 partner approval, and relational intimacy sexual motives and more anxious attachment to exhibit less positive sexual/relational reactions to hooking up. 166 We also posited that young adults who report that hooking up negatively 167 affected their academic performance to endorse more depressive symptoms 168 and more relational intimacy sexual motives. Last, we expected that alcohol 169 use would be negatively associated with young adults' perception that hook-170 ing up affected their social/peer networks, romantic/sexual sense of self, and 171 academic performance. 172

173

METHOD

174 Participants

We recruited 400 female participants, of which 190 (47.5%) reported hooking 175 up in the past year. Our sample comprised these 190 college women, of 176 177 which 74 were freshmen, 69 were sophomores, 34 were juniors, and 13 were seniors. Their average age was 19.54 years (SD = 2.21). Regarding 178 race/ethnicity, 129 identified as White, 5 identified as Asian American, 18 179 180 identified as Black, 22 Hispanic, and 13 identified as multiethnic/racial, and 3 did not respond. To ensure participants' responses were valid we included 181 screener items throughout the study (e.g., "Relationships are based on trust, 182 to ensure that we can trust your responses please check the Agree box"). 183 Participants who did not complete these items accurately were screened from 184the final sample. 185

186 Measures

187 SOCIAL, ACADEMIC, ROMANTIC, AND SEXUAL HOOKING UP REACTIONS SCALE (SARS)

Developed for the present study, this measure initially comprised 24 items reflecting hooking up outcomes that may positively or negatively influence social (n = 8), academic (n = 8), and sexual/romantic relationships (n = 8). We purposely developed items that were worded positively and negatively to help address the range of potential reactions. After consulting with two content experts (i.e., those who have published studies examining hooking

Items	F1	F2	F3
2. I have gained more confidence about sex (and related behaviors) based on this hookup.	.60		
10. This hookup has taught me a lot about my sexual comfort with partners.	.71		
14. This hookup has strengthened my commitment to be in an exclusive romantic relationship (e.g., boyfriend/girlfriend).	.56		
15. This hookup helped me be more comfortable talking about sex.	.78		
16. This hookup taught me important things about myself that will benefit me in future romantic relationships (e.g., boyfriend/girlfriend).	.77		
1. This hookup has negatively impacted relationship with my friends.		54	
3. My school work has been negatively impacted as a result of this hookup.		51	
6. This hookup made me feel worse about my ability to be in romantic relationships (e.g., boyfriend/girlfriend).		77	
7. I feel distracted in class as a result of this hookup.		71	
8. Relationship with my friends have become strained due to this hookup.		72	
11. I question my ability to find a suitable partner for a romantic relationship (e.g., boyfriend/girlfriend) after this hookup.		64	
 I feel less sure about myself sexually speaking after this hookup. 		73	
4. My friends approve of me for hooking up.			.41
5. I feel more connected with my friends as a result of this hookup.			.52
9. I have performed better in my classes after this hookup.			.50
12. I feel more engaged in my school work after this			.62
hookup.			
Cronbach's alphas	.79	.84	.70
M	3.15	1.93	3.50
SD	0.98	0.80	0.73

TABLE 1. Exploratory Factor Analysis of Social, Academic, Romantic, and Sexual Hooking Up Reactions Scale (SARS)

Note. F1 = SARS-Sexual/Romantic Reactions; F2 = SARS-Negative Reactions; F3 = SARS-Social/Academic Engagement.

up), we excluded or reworded 12 items, resulting in 16 items. The items were
rated on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The
items are listed in Table 1 and the psychometrics of the scale is presented in
the results section.

198 SEX MOTIVES SCALE (COOPER ET AL., 1998)

199 We used four subscales of the Sex Motives Scale, which was constructed to

200 reflect the two motivational dimensions described above. All of the items

201 had the same stem: "Now thinking about your sexual experience with your

most recent hookup partner, to what extent did you engage in this ex-202perience to... " and were rated on a scale ranging from 1 (not at all) to 5 203 (a great deal). The first subscale reflected sexual motives regarding relational 204 intimacy ($\alpha = .94$), and an example is "... become more intimate with this 205 person?" The second subscale reflects self-enhancement motives ($\alpha = .87$). 206 An example item is "... just for the thrill of it?" The third subscale reflects 207self-affirmation ($\alpha = .80$) and an example item is "to make you feel more 208 self-confident?" The fourth subscale reflects Partner Approval ($\alpha = .87$) and 209 an example item is "... so this person would not be mad at you?" Support 210 for the psychometric properties of the Sex Motives Scale has been demon-211 strated in previous studies, such as differentiating between exclusive and 212 casual sexual relationships for motives in college and community samples 213 214 (e.g., Cooper et al., 1998; Sheldon et al., 2006).

215 EXPERIENCES IN CLOSE RELATIONSHIP SCALE-SHORT FORM (WEI, RUSSELL,

216 Mallinckrodt, & Vogel, 2007)

This scale used to assess participants' attachment. Specifically, the scale has 217 two subscales: anxiety and avoidance, with six items per subscale. The items 218 are rated on a 7-point scale ranging from 1 (definitely not like me) to 7 (defi-219 nitely like me). Wei, Russell, Mallinckrodt, and Vogel (2007) reported support 220 for the validity for this shorten measure through correlations with psycholog-221 ical well-being, loneliness, fear of intimacy, and comfort with self-disclosure 222 measures. Cronbach's alphas for the avoidance and anxiety subscales in the 223 current sample were .86 and .75, respectively. 224

225 TYPE OF PHYSICAL INTIMACY

Participants endorsed the types of physical intimacy involved in their 226 hookups. The response options were "kissing," "petting," "oral sex," and 227 "intercourse (vaginal, anal)." Participants were able to endorse more than 228 one type of physical intimacy. On the basis of their responses, we coded 229 penetrative hookups (hookup-penetrative) if the participants indicated "oral 230 sex" or "intercourse" (n = 99; 52.1%) and nonpenetrative hookups (hookup-231 nonpenetrative) if the participants indicated "kissing" and/or "petting" only 232 (n = 91; 47.9%). We used this variable as a control variable in the analyses. 233

234 LONELINESS

The University of California–Los Angeles Loneliness Scale is a commonly used measure to assess individuals' perceptions of how lonely they feel (Russell, 1996). The eight-item version used required participants to make ratings on a 4-point scale ranging from 1 (*never*) to 4 (*often*). The University of California–Los Angeles Loneliness Scale has demonstrated adequate reliability across samples and is commonly related to numerous indicators

7

Q8

J. Owen et al.

241 of psychological distress (e.g., depression, low self-esteem; see Vassar & **Q9** 242 Crosby, 2008). Cronbach's alpha in this study was .83.

243 Depressive Symptoms

244 The 10-item version of the Center for Epidemiologic Studies-Depression Scale
245 (Radloff, 1977) assessed depressive symptoms. The items are rated on a 4Q10 246 point scale, with higher scores indicating more distress. The Center for
247 Epidemiologic Studies-Depression Scale has demonstrated adequate reliabil248 ity and validity estimates in numerous studies (see Cole Rabin Smith, &

248 ity and validity estimates in numerous studies (see Cole, Rabin, Smith, & **Q11** 249 Kaufman, 2004). Cronbach's alpha in this study was .78.

250 Alcohol Use

251 We used two items to assess the degree to which the young adult and their

- 252 hookup partner were intoxicated during the hookup:
- 253 During your most recent hooking up experience, were you and/or your

254 partner under the influence of a substance (e.g., alcohol)?

I was____ and My partner was____.

These items were rated on a 4-point scale ranging from 1 (*not intoxicated*) to 4 (*very intoxicated*). The correlation between these two items was high, r = .87, and we averaged the two items to create a composite score. Previous studies have identified that alcohol use before hooking up is more predictive of emotional reactions (Owen & Fincham, 2011). Accordingly, we opted to use this method to assess alcohol use as opposed to a measure of general alcohol use.

263 Procedures

274

Participants were recruited through an introductory course on families across 264 the lifespan that fulfills a social studies requirement and therefore attracts 265 students from across the university. Data were collected during the spring 266 semester of 2012 at Florida State University. Students were offered multiple 267 options to obtain extra credit for the class, one of which comprised the 268 survey used in this study. Of the class, 98% decided to participate in the 269 study. They completed informed consent and were told how to access the 270 online survey. They were given a 5-day window in which to complete the 271 survey. All procedures were approved by the university's institutional review 272 board. 273

RESULTS

To determine whether distinct reactions to hooking up emerge in social, romantic/sexual, and academic domains we conducted an exploratory

factor analysis, using principle axis extraction with oblique rotation for SARS 277 items. We retained items that loaded >.40 on a factor with cross loadings 278 no greater than .30 on other factors. A three-factor model emerged (see 279 Table 1) albeit one that differed slightly from what was predicted. Factor 2801 accounted for 32.13% of the variance with items reflecting reactions to 281 sexual behaviors and romantic relationships (labeled sexual/romantic re-282 actions). Factor 2 accounted for 10.60% of the variance, and the items 283 284loading on this factor reflected a negative reaction about the hookup in regard to academic, peer relationships, and efficacy in future romantic rela-285 286 tionships (labeled *negative personal reactions*). The third factor accounted for 4.81% of the variance and the items reflect increased engagement 287 within their social network and academics (labeled social/academic en-288 gagement). Internal consistency estimates for the three factors ranged from 289 .70 to .84. 290

The means and standard deviations for the SARS variables in the study 291 are shown in Table 1. Participants reported a mean score on the SARS-292 293 negative personal reactions of 1.93, suggesting that negative reactions to hooking up were not common. For the other two SARS subscales, the mean 294 295 scores were closer to the midpoint of the scale (3.15 and 3.50). The difference between negative personal reactions and sexual/romantic reactions 296 (d = 0.82) was statistically significant (p < .001). Similarly, the difference 297 between negative personal reactions and social/academic engagement (d =298 1.24) were statistically significant (p < .001). In addition, there was a statis-299 tically significant difference between social/academic engagement and sex-300 ual/romantic reactions (p < .01, d = -0.40). 301

302 Next, we examined the bivariate correlations between the SARS subscales and the other variables in the study. Because the subscales yielded by 303 304 the SARS did not conform exactly to what was expected, our predictions cannot always be linked directly to the associations with other variables. Table 2 305 306 shows that negative personal reactions were positively associated with more anxious attachment, alcohol use, depressive symptoms, and feelings of lone-307 liness as well as the sex motives of relational intimacy, self-affirmation, and 308 partner approval. Given that negative personal reactions include reactions 309 regarding young adults' social relationships, academic performance, and ro-310 mantic relationships these associations are consistent with what is to be 311 expected. Social/academic engagement reactions were negatively associated 312 with anxious attachment and sex motives of relational intimacy and self-313 314 affirmation. These results are consistent with our expectations; however, 315 we also anticipated that social/peer aspect of this subscale would result in significant associations with loneliness and the academic aspects of this 316 317 scale would be associated with fewer depressive symptoms-but neither expectation was supported by the data. Sexual/romantic reactions demon-318 strated a negative association with anxious attachment, alcohol use, as well 319 as the sex motives of relational intimacy and self-affirmation. These results 320 are consistent with our original predictions. 321

TABLE 2. Bivariate Correlations	ate Correlat	ions With t	With the Social, Academic, Romantic, Sexual Reactions Scale	cademic, R	omantic, Se	exual Reacti	ons Scale					
	1	2	3	4	Ń	9	7	8	6	10	11	12
1. SARS-neg												
2. SARS-SR	41^{**}											
3. SARS-SA	36^{**}	.51**										
4. HU-sex	.14	16^{*}	08									
5. Avoidant	60.	04	02	.03								
6. Anxious	.33**	29^{**}	29**	01	.12							
7. Depressive	$.31^{**}$	02	01	.05	$.16^{*}$.35						
8. Lonely	.36**	.02	.02	.03	$.26^{**}$.27**	.52**					
9. Alcohol	$.17^{*}$	27**	13	.14	03	.06	01	08				
10. Intimacy	.23**	36**	26^{**}	.15	13	.16	.04	08	.01	I		
11. Enhance	11	10	07	18^{*}	.13	08	02	04	.16	12		
12. Self aff	$.21^{**}$	23**	22**	.13	.15	.15	$.18^{*}$	$.18^{*}$	05	.07	22**	
13. Part apprvl	.31**	11	12	.03	.05	$.18^{*}$.21**	.12	08	$.18^{*}$	06	.45**
<i>Note</i> . SARS = Social, Academic, Relational Reactions to Hooking Up Scale. SARS-neg = SARS-negative reactions; SARS-RE = SARS-sexual/romantic reactions; SARS-social/academic engagement; HU-sex = hooking up sexual intimacy (coded 1 = oral/intercourse, 0 = kissing/petting); avoidant = avoidant attachment; anxious = Experiences in Close Relationship Scale-Short Form, anxious attachment; depressive = Center for Epidemiologic Studies-Depression Scale, depressive symptoms; lonely = University of California–Los Angeles, Loneliness Scale; alcohol = alcohol use; intimacy = sex motives-enhancement; self-aff = sex motives-self-affirmation; part apprvl = sex motives-partner approval.	al, Academic ocial/academ s = Experier ns; lonely = ent; self-aff =	, Relational nic engagem tees in Close University of sex motive	ational Reactions to Hooking Up Scale. SARS-neg = SARS-negative pagement; HU-sex = hooking up sexual intimacy (coded 1 = ora n Close Relationship Scale-Short Form, anxious attachment; depressi ersity of California-Los Angeles, Loneliness Scale; alcohol = alcohol u motives-self-affirmation; part apprvl = sex motives-partner approval.	Hooking U = hooking Scale-Short os Angeles, 1 os Angeles, 1 tion; part ap	p Scale. SA up sexual ir Form, anxic Loneliness Sc prvl = sex m	RS-neg = SA dtimacy (cod ous attachme ale; alcohol totives-partn	RS-negative ed 1 = oral/ nt; depressiv = alcohol us er approval.	reactions; { intercourse; e = Center :; intimacy =	SARS-SR = 0 = kissir for Epidem = sex motiv	SARS–sexua ng/petting); iologic Stuc es–intimacy	al/romantic r avoidant = lies-Depressi	eactions; avoidant on Scale, nt = sex
T (T												

10

Q12

	Negative re	eactions	Sexual/ro reactio		Social/aca engager	
	b (SE)	β	b (SE)	β	b (SE)	β
Anxious	.13 (.06)	.17*	24 (.08)	26**	16 (.06)	23**
Depressive	.09 (.15)	.06	.17 (.18)	.09		_
Lonely	.40 (.13)	.28**	.09 (.16)	.05	_	—
Alcohol	.10 (.07)	.11	16 (.08)	15		
Intimacy	.09 (.07)	.15	19 (.06)	24**	12 (.05)	21**
Self-aff	.02 (.07)	.03	19(.08)	19^{*}	13 (.06)	17*
Part apprvl	.23 (.10)	.19*	_		_	_
HU-sex			18 (.15)	09	_	

TABLE 3.	Linear Regression	Models Predicting SARS	Reactions to Hooking Up
----------	-------------------	------------------------	-------------------------

Note. SARS = Social, Academic, Relational Reactions to Hooking Up Scale. Anxious = Experiences in Close Relationship Scale-Short Form, anxious attachment; depressive = Center for Epidemiologic Studies-Depression Scale, depressive symptoms; lonely = University of California–Los Angeles, Loneliness Scale; alcohol = alcohol use; intimacy = sex motives–intimacy; self-aff = sex motives–self affirmation; part apprvl = sex motives–partner approval; HU-sex = hooking up sexual intimacy (coded 1 = oral/intercourse, 0 = kissing/petting).

p < .05; p < .01; p < .01; p < .001.

Although univariate associations with reactions to hooking up are interesting, it is important to examine them in a multivariate context. Significant bivariate correlations with the SARS factors were therefore used in three different regression equations where each SARS factor served as the outcome variable (see Table 3).

The model predicting negative personal reactions was statistically 327 significant, F(7, 182) = 9.93, p < .001, adjusted $R^2 = .25$. Of the pre-328 dictor variables, anxious attachment, feelings of loneliness, and sex 329 motives-seeking partner approval were positively associated with negative 330 reactions. The second equation predicting sexual/romantic reactions was 331 also statistically significant, F(7, 182) = 8.30, p < .001, adjusted $R^2 = .21$. 332 Anxious attachment, sex motives-intimacy, and sex motives-self-affirmation 333 were negatively associated with young adults' sexual/romantic reactions. The 334 third regression predicting social/academic engagement reactions was sta-335 tistically significant, F(3, 184) = 9.85, p < .001, adjusted $R^2 = .12$. Consistent 336 with the previous model, anxious attachment, sex motives-intimacy, and sex 337 motives-self-affirmation were negatively associated with social/academic 338 engagement reactions. 339

340

DISCUSSION

Hooking up can influence several aspects of young adults' lives, including their sense of self as sexual and romantic partners, social networks and academic performance. Although conceptually distinct these facets of young adults' lives were interrelated at the empirical level. Young adults' reactions

J. Owen et al.

to hooking up reflected the degree to which they perceived: (a) increases in 345 346 their awareness and comfort about sexual behaviors and interest in romantic relationships (sexual/romantic reactions), (b) enhancements with their social 347 networks and academic performance (social/academic engagement), and (c) 348 negative effects on their peer relationships, academic performance, and con-349 fidence about future romantic relationships (negative personal reactions). 350 Comparison of the three domains showed that young adults reported greater 351 (large effect sizes) sexual/romantic reactions and social/academic engage-352 ment reactions as compared with negative personal reactions, which sup-353 354 ports previous studies that have found that young adults report that hooking up results in more positive than negative emotional reactions (e.g., Lewis 355 et al., 2011; Owen & Fincham, 2011). These three areas for hooking up re-356 actions extend ways to understand how young adults' perceive the benefits 357 and costs to hooking up beyond emotional reactions to hooking up. 358

359 Hooking up can result in increased awareness of the sexual self, in-360 cluding confidence in talking about sex with sexual partners and comfort 361 in sexual behavior as well as increased dedication toward and knowledge of future exclusive romantic relationships. These aspects may be important 362 in navigating sexual encounters, such as discussing condom use (Serovich 363 & Greene, 1997), as well as strengthening confidence in romantic relation-364 ships, which has been associated with higher relationship quality (Owen 365 Q13 366 et al., 2012). Depending on how a hookup experience unfolds and the meaning and reactions individuals generate, they may become more or less 367 at ease with sexual behaviors and their sense of a sexual self. For exam-368 ple, following a hookup experience, one might feel more confident in their 369 370 sexual skills and may feel more comfortable with their sexuality (AUTHORS **Q14** 371 blinded). In contrast, individuals who engage in a hookup may decide that 372 they value more commitment and security in romantic relationships. Whether positive or negative, it seems that these experiences may shape views of self 373 374 and expectations or desires in future relationships.

The degree to which these sexual/romantic reactions are positive or neg-375 ative appears to be related to attachment styles and sexual motives. Specifi-376 cally, young adults who reported more anxious attachment styles as well as 377 sex motives of relational intimacy and self-affirmation were less likely to have 378 positive sexual/romantic reactions to hooking up. In many ways, anxious at-379 tachment and these two sex motives share a theoretical commonality. That 380 is, anxious attachment styles reflect a longing to be emotionally close with 381 others while fearing abandonment and searching for ways to reduce this anx-382 Q15 383 iety (Hazen & Shaver, 1998). Thus, relational intimacy sexual motives might reflect one approach to developing emotional connectedness with others. Si-384 385 multaneously, self-affirmation sex motives reflect a sexual approach to help avoid negative consequences or likely fear of abandonment. Future research 386 is needed to understand how these sexual motives and anxious attachment 387 relate in the prediction of sexual/romantic reactions, because there was little 388

13

statistical overlap between these concepts. Thus, the ways in which anx-ious attachment and sexual motives relate to hooking up is likely to explaindifferent aspects of the experience.

Another interesting and underexplored aspect of casual sexual behav-392 iors is the potential positive perceived influence on academic performance 393 and peer relationships. Common within this developmental phase is a fo-394 cus on acceptance within peer groups and success in academics (Beyers & 395 396 Goossens, 2002). Although we expected that academics and social networks would not converge, we found that one aspect of young adults' reactions to 397 398 hooking up includes their perception that their social network and academic performance were enhanced after the hookup. Thus, hooking up can result 399 in positive effects, as perceived by young adults, in their social networks and 400 academic performance. Similar to sexual/romantic reactions, young adults 401 who reported more anxious attachment and sexual motives of relational inti-402 macy and self-affirmation were less likely to report positive social/academic 403 engagement reactions. Thus, the approach (relational intimacy) and avoid-404 405 ance (self-affirmation) sexual motivations coupled with anxious attachment might by a barrier for young adults to benefit from the hookup—regardless 406 of the foci (i.e., with peers, academics, or sexual/romantic). 407

Last, hooking up can result in negative reactions and our study found 408 one general factor that encompasses these negative reactions. The lack of 409 specificity across the social, sexual/romantic, and academic in young adults' 410negative reactions lends itself to a couple of explanations. It is possible that 411 the negative effects of hooking up affects young adults' universally-from 412 academics to peers to sexual/romantic sense of self. Alternatively, negative 413 reactions to hooking up may reflect a general discomfort about the expe-414 415 rience and this subscale may reflect such a sentiment. Given that social, 416 academic, and sexual/romantic sense of self are interrelated, it is difficult to disentangle what is driving this factor and more research is needed to better 417 418 understand young adults' negative reactions. For example, there are potential health concerns related to hooking up that can cause anxiety and distrac-419 tion, such as the possibility of contracting an STI or becoming pregnant. 420 Consequently, these reactions may influence ones' ability to concentrate or 421 focus on academic tasks, may relate to how one feels around peers, and may 422 influence one's sexual/romantic sense of self. 423

Young adults' negative personal reactions were positively associated 424 425 with anxious attachment, feelings of loneliness, and the sexual motive of partner approval. Young adults' anxious attachment style coupled with part-426 427 ner approval sexual motives appeared to lead to more negative reactions. It could be that the desire to be with others and wanting to reduce negative 428 429 reactions from the hookup partner resulted in an interaction that was not advantageous, which may be due to the transient nature of hookups (e.g., 430 Eisenberg et al., 2009). It is possible that these factors, coupled with feelings 431 of loneliness, may have resulted in ruminations after the experience leading 432

J. Owen et al.

to increased academic distraction, negative interactions (or isolation from)
with peers, and questioning of the sexual/romantic sense of self. These results parallel previous research on partner approval sexual motives (Cooper
et al., 2008) and loneliness-emotional reactions research (Owen & Fincham,
2011), and yet extend those findings regarding attachment theory and reactions to hooking up.

439 Limitations and Implications

440 The present study has several limitations. First, the correlational design does not yield information on direction of effects. Consequently, we used theory 441 442 to guide our models and their interpretation. Second, we collected data with women only; thus, it is important to replicate our findings (including 443 factor structure) with men. We decided to focus on women's hooking-up 444 experience because of growing evidence that women tend to have fewer 445 positive outcomes than do men (e.g., Fielder & Carey, 2010a; Lewis et al., 446 2011; Owen et al., 2010; Owen & Fincham, 2011). Third, we purposely 447 focused on reactions that would be most consistent with young adults in 448 449 college; as such, we do not expect or intend our findings to extend to young adult women who are not in college. Fourth, our originally predicted 450 451 factor solution was not fully realized, which may suggest that further scale development is needed. Thus, the SARS is probably best considered to have 452 initial support but further validation is needed to increase the viability of this 453 measure. Fifth, although alcohol use during the current hooking up and **Q16** 454 emotional reactions to hooking up have been noted in previous research 455 (e.g., Owen & Fincham, 2011), such an association was not found here. It is 456 possible that alcohol use during the hooking up could differently relate to 457 emotional reactions versus social, relational, and academic reactions. Thus, 458 given the ubiquitous nature of alcohol use within hookups, future research 459 460 may want to explore the role of alcohol use in the variety of reactions to hooking up. 461

462 Notwithstanding these limitations, there are implications for educational practice and future research. Our findings may help inform relationship ed-463 ucation programs (Fincham, Stanley, & Rhoades, 2011). That is, central to 464 positive or negative reactions to hooking up for a range of outcomes seem to 465 rest with attachment theory and sexual motives. Specifically, relationship ed-466 ucation programs may want to address unique variants for young adults who 467 468 endorse more anxious attachment as they tend to have fewer positive and more negative reactions to hooking up. On the basis of our study, it could 469 be that young adults who report more anxious attachment may not get their 470 471 relational needs met via hooking up. It is possible that more problematic they may not gain knowledge or confidence about their sexual or relational sense 472 of self, which is consistent with previous research regarding the relationship 473 between anxious attachment and misidentification of respectful relationships 474

Reactions to Hooking Up

475 (Owen, Quirk, & Manthos, 2012). Consistently, sexual motives that focus on 476 approach motives for relational intimacy as well as avoidance motives for 477 avoiding personal or partner discomfort tend to result in less positive and 478 more negative reactions to hooking up. Thus, it would be important for 479 young adults to consider their motivations in the context of what may result 480 from hooking up.

REFERENCES

- American College Health Association. (2007). American College Health Association National College Health Assessment: Reference Group Executive Summary Fall
 2006. Baltimore, MD: Author.
- Bisson, M. A., & Levine, T. R. (2009). Negotiating a friends with benefits relationship.
 Archives of Sexual Behavior, *25*, 125–140.
- Bai, H., & Pan, W. (2009). A multilevel approach to assessing the interaction effects
 on college student retention. *Journal of College Student Retention: Research, Theory & Practice, 11, 287–301.*
- Beyers, W., & Goossens, L. (2002). Concurrent and predictive validity of the Student Adaptation to College Questionnaire in a sample of European freshman
 students. *Educational and Psychological Measurement*, 62, 527–538.
- Burdette, A. M., Ellison, C. G., Hill, T. D., & Glenn, N. D. (2009). Hooking up at
 college: Does religion really make a difference? *Journal for the Scientific Study of Religion*, 48, 535–551.
- Cooper, M. L., Barber, L. L., Zhaoyang, R., & Talley, A. E. (2011). Motivational
 pursuits in the context of human sexual relationships. *Journal of Personality*,
 79, 1333–1368.
- Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky
 sexual behavior among adolescents and young adults: A functional perspective. *Journal of Personality and Social Psychology*, *75*, 1528–1558.
- Eisenberg, M. E., Ackard, D. A., Resnick, M. D., & Neumark-Sztainer, D. (2009).
 Casual sex and psychological health among young adults: Is having "friends
 with benefits" emotionally damaging? *Perspectives on Sexual and Reproductive Health*, 41, 231–237.
- Fielder, R. L., & Carey, M. P. (2010a). Predictors and consequences of sexual "hook ups" among college students: A short-term prospective study. *Archives of Sexual*
- 508 Behavior, 39, 1105–1119.
- Fielder, R. L., & Carey, M. P. (2010b). Prevalence and characteristics of sexual
 hookups among first-semester female college students. *Journal of Sex and Mar- ital Therapy*, *36*, 346–359.
- Fincham, F. D., Stanley, S. M., & Rhoades, G. K. (2011). Relationship education in
 emerging adulthood: Problems and prospects. In F. D. Fincham & M. Cui (Eds.), *Romantic relationships in emerging adulthood* (pp. 293–316). New York, NY:
- 514 *Romantic relationships in emerging adulthood* (pp. 2 515 Cambridge University Press.
- Friedman, B. A., & Mandel, R. G. (2009). The prediction of college student academic
 performance and retention: Application of expectancy and goal setting theories.
- 518 *Journal of College Student Retention: Research, Theory & Practice, 11, 227–246.*

Q17

		16 J. Owen et al.
	519	Gentzler, A. L., & Kerns, K. A. (2004). Associations between insecure attachment and
	520	sexual experiences. Personal Relationships, 11, 249-265.
	521	Glenn, N. D., & Marquardt, E. (2001). Hooking up, hanging out, and hoping for Mr.
	522	Right: College women on dating and mating today. New York, NY: Institute for
	523	American Values.
	524	Grello, C. M., Welsh, D. P., & Harper, M. S. (2006). No strings attached: The nature
	525	of casual sex in college students. Journal of Sex Research, 43, 255-267.
	526	Gute, G., & Eshbaugh, E. M. (2008). Personality as a predictor of hooking up among
	527	college students. Journal of Community Health Nursing, 25, 26–43.
	528	Hazen, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment
	529	process. Journal of Personality and Social Psychology, 52, 511–524.
	530	Lewis, M. A., Granato, H., Blayney, J. A., Lostutter, T. W., & Kilmer, J. R. (2011).
	531	Predictors of hooking up sexual behaviors and emotional reactions among U.S.
Q18	532	college students. Archives of Sexual Behavior.
	533	Mayaud, P., & Mabey, D. (2004). Approaches to the control of sexually transmit-
	534	ted infections in developing countries: Old problems and modern challenges.
	535	Sexually Transmitted Infections, 80, 174–182.
	536	Manning, W. D., Longmore, M. A., & Giordano, P. C. (2005). Adolescents' involve-
	537	ment in non-romantic sexual activity. Social Science Research, 34, 384-407.
	538	Owen, J., Chapman, K., Quirk, K., Inch, L., Bergen, C., McMillen, A., & France, T.
	539	(2012). Processes of change in relationship education for lower income African
	540	American couples. <i>Journal of Couple and Relationship Therapy</i> , <i>11</i> , 51–68.
	541	Owen, J., & Fincham, F. D. (2010). Effects of gender and psychosocial factors on
	542	"friends with benefits" relationships among young adults. Archives of Sexual
	543	Behavior, 40, 311–320.
	544 5 4 5	Owen, J., & Fincham, F. D. (2011). Young adults' emotional reactions after hooking
	545 546	up encounters. <i>Archive of Sexual Behaviour</i> , <i>40</i> , 321–330. Owen, J., Fincham, F. D., & Moore, J. (2011). Short-term perspective study of hooking
	547	up among college students. Archives of Sexual Behavior, 40, 331–341.
	548	Owen, J., Rhoades, G., Stanley, S., & Fincham, F. (2010). Hooking up among college
	549	student: demographic and psychosocial correlates. <i>Archives of Sexual Behavior</i> ,
	550	<i>39</i> , 653–663.
	551	Owen, J., Quirk, K., & Manthos, M. (2012). I get no respect: The relationship between
	552	trauma and romantic relationship functioning. Journal of Trauma & Dissocia-
	553	tion, 13, 175–189.
	554	Paul, E. L., McManus, B., & Hayes, A. (2000). "Hookups" characteristics and correlates
	555	of college students' spontaneous and anonymous sexual experiences. Journal
	556	of Sex Research, 37, 76–88.
	557	Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in
	558	the general population. Applied Psychological Measurement, 1, 385-401.
	559	Russell, D. W. (1996). UCLA loneliness scale (Version 3): Reliability, validity, and
	560	factor structure. Journal of Personality Assessment, 66, 20-40.
	561	Scott-Sheldon, L. A. J., Huedo-Medina, T. B., Warren, M. R., Johnson, B. T., Carey,
	562	M. P. (2011). Efficacy of behavioral interventions to increase condom use and
	563	reduce sexually transmitted infections: A meta-analysis, 1991 to 2010. Journal
	564	of Acquired Immune Deficiency Syndromes, 58, 489–498.

Serovich, J., & Greene, K. (1997) Predictors of adolescent sexual risk taking behaviours which put them at risk for contracting HIV. *Journal of Youth and Adolescence*, 26, 429–444.
Townsend, J. M., & Wasserman, T. H. (2011). Sexual hookups among college students: Sex differences in emotional reactions. *Archives of Sexual Behaviors*, 40,

- 570 1173–1181.
- 571 Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences
- 572 in Close Relationship Scale (ECR)-Short Form: Reliability, validity, and factor
- 573 structure. Journal of Personality Assessment, 88, 187–204.